M. Koden, et al. USSN: 09/937,796

Page 4

## IN THE CLAIMS

Please **amend** claims 1, 2, 11, 13, and 14 in accordance with the Summary of the Claims section, *infra*. Deletions are shown with a strikethrough and added matter is shown with underlining.

Please **add** claims 21-25. Support for the newly added claims is found in the specification on page 14, lines 15-22.

1. (Twice Amended) An optical control device that does not use a color filter or backlighting, the device comprising:

a first substrate with at least one light output layer;

a second substrate with a light transmitting function, positioned opposite to the first substrate;

a liquid crystal sandwiched between the first and second substrates,

first electrodes, on one of the first and second substrates, for applying multiple scan signals; and

second electrodes, on the other of the first and second substrates, for applying multiple signal voltages; and

a layer with a light polarizing function on the first substrate,

wherein:

the light output layer is arranged in stripes and extends in the same direction as the first electrodes; and the first substrate, the light output layer, the layer with a light polarizing function, the liquid crystal, and the second substrate are arranged in this order.

2. (Twice Amended) An optical control device that does not use a color filter or backlighting, the device comprising:

a first substrate with at least one light output layer;

a second substrate with a light transmitting function, positioned opposite to the first substrate;

multiple active elements on one of the first and second substrates;

gate electrodes, on the one of the first and second substrates, for applying multiple scan signals; and

source electrodes, on the other of the first and second substrates, for applying multiple signal voltages,

wherein:

Page 6

each light output layer is arranged in stripes and extends in the same direction as the gate electrodes;

each light output layer shines simultaneously with adjacent light output layers, but with a different wavelength from those of the adjacent light output layers; and

the light output layers shine when a specified time has elapsed after a set of scan signals are transmitted to the gate electrodes and extinguish before a succeeding set of scan signals are transmitted.

Claim 3 (original)

3. The optical control device as defined in claim 2, wherein the active elements are provided on the second substrate.

Claims 4-8 (previously amended)

- 4. (Amended) The optical control device as defined in claim 2, further comprising: a layer with a light polarizing function on the first substrate.
- 5. (Amended) The optical control device as defined in claim 1, wherein:

the light output layer provided on the first substrate is formed by a light emitting layer composed of at least one of an organic EL light emitter, an inorganic EL light emitter, and an FED light emitter; and

the light emitting layer shines with application of a voltage across the first electrodes and the second electrodes.

6. (Amended) The optical control device as defined in claim 2, wherein:

the light output layer provided on the first substrate is formed by a light emitting layer composed of at least one of an organic EL light emitter, an inorganic EL light emitter, and an FED light emitter;

the gate electrodes, the light emitting layer, and the source electrodes are provided in this order on the first substrate; and

M. Koden, et al.

USSN: 09/937,796

Page 7

the light emitting layer shines with application of a voltage across the gate electrodes and the source electrodes.

- 7. (Amended) The optical control device as defined in claims 1, wherein the light output layer includes an optical waveguide and a light source coupled to the optical waveguide and positioned in a non-display section area.
- 8. (Amended) The optical control device as defined in claim 2, wherein the light output layer includes an optical waveguide and a light source coupled to the optical waveguide and positioned in a non-display section area.

Claims 9-10 (original)

- 9. The optical control device as defined in claim 1, wherein the light output layer shines with spectrum periodically varying according to a position of the light output layer.
- 10. The optical control device as defined in claim 9, wherein the light output layer shines with spectrum periodically varying for each pixel.

Claim 11 (currently amended)

11. (Amended) An optical control device-driving method, comprising the steps of:(a) using an optical device that does not use a color filter or backlighting, the device including:

a first substrate with at least one light output layer;

a second substrate with a light transmitting function, positioned opposite to the first substrate;

a liquid crystal sandwiched between the first and second substrates; first electrodes, on one of the first and second substrates, for applying multiple scan signals;

M. Koden, et al.

USSN: 09/937,796

Page 8

second electrodes, on the other of the first and second substrates, for applying multiple signal voltages; and

a layer with a light polarizing function on the first substrate, wherein:

the light output layer is arranged in stripes and extends in the same direction as the first electrodes; and

the first substrate, the light output layer, the layer with a light polarizing function, the liquid crystal, and the second substrate are arranged in this order, and

(b) setting such that the light output layer shines for a duration of 5 to 70% of each display frame time.

Claim 12 (previously amended)

12. (Amended) The optical control device-driving method as set forth in claim 11, wherein

the light output layer shines for a duration of 15% to 40% of each display frame time.

Claims 13 and 14 (presently amended)

13. (Twice Amended) An optical control device-driving method, the method comprising the steps of wherein:

providing (a) an optical device, wherein the optical device includes including:

a first substrate with at least one light output layer;

a second substrate with a light transmitting function, positioned opposite to the first substrate;

a liquid crystal sandwiched between the first and second substrates;

first electrodes, on one of the first and second substrates, for applying multiple scan signals;

second electrodes, on the other of the first and second substrates, for applying multiple signal voltages; and

M. Koden, et al.

USSN: 09/937,796

Page 9

a layer with a light polarizing function on the first substrate, wherein:

the light output layer is arranged in stripes and extends in the same direction as the first electrodes; and

the first substrate, the light output layer, the layer with a light polarizing function, the liquid crystal, and the second substrate are arranged in this order; and

shining(b) the light output layer shines when a specified time has elapsed after a set of scan signals are transmitted to scan lines; and

<u>extinguishingextinguishes</u> <u>said light output layer</u> before a succeeding set of scan signals are transmitted.

14. (Twice Amended) An optical control device-driving method, the method comprising the steps of wherein:

<u>providing (a)</u> an optical device <u>is used</u>, <u>wherein</u> the optical device <u>includesincluding</u>:

a first substrate with at least one light output layer,

a second substrate with a light transmitting function, positioned opposite to the first substrate;

a liquid crystal sandwiched between the first and second substrates;

electrodes, on one of the first and second substrates, for applying multiple scan signals;

electrodes, on the other of the first and second substrates, for applying multiple signal voltages; and

a layer with a light polarizing function on the first substrate, wherein:

the light output layer is arranged in stripes and extends in the same direction as the electrodes for applying the multiple scan signals; and the first substrate, the light output layer, the layer with a light polarizing function, the liquid crystal, and the second substrate are arranged in this order;

M. Koden, et al. USSN: 09/937,796

Page 10

shining(b) the light output layer shines when a specified time has elapsed after a set of scan signals is transmitted to scan lines; and

<u>extinguishing</u>extinguishes <u>said light output layer</u> before a succeeding set of scan signals is transmitted;

wherein (e) the light output layer shines with a different wavelength from those of adjacent light output layers; and

(d) more than one light output layers that shine with mutually different wavelengths are caused to shine simultaneously.

Claims 15-20 (original)

- 15. The method as defined in claim 14, wherein each light output layer is either red, green, or blue so that red, blue, and green repeat periodically.
- 16. The optical control device defined in claim 2, wherein the first substrate, the light output layer, the liquid crystal, and the second substrate are arranged in this order.
- 17. The optical control device defined in claim 2, wherein the light output layer is adjusted in terms of luminance for each gate electrode.
- 18. The optical control device as defined in claim 2, wherein the light output layer is adjusted in terms of luminance in accordance with a maximum luminance which is based on the signal voltages applied to the source electrodes.
- 19. The optical control device defined in claim 2, wherein the light output layer shines with spectrum periodically varying according to a position of the light output layer.
- 20. The optical control device as defined in claim 19, wherein the light output layer shines with spectrum periodically varying for each pixel.

M. Koden, et al. USSN: 09/937,796

Page 11

## Claims 21-25 (newly added)

- 21. (New) The optical control device as defined in claim 1, wherein the layer with the light polarizing function is provided on the light output layer.
- 22. (New) The optical control device as defined in claim 4, wherein the layer with the light polarizing function is provided on the light output layer.
- 23. (New) The optical control device as defined in claim 11, wherein the layer with the light polarizing function is provided on the light output layer.
- 24. (New) The optical control device as defined in claim 13, wherein the layer with the light polarizing function is provided on the light output layer.
- 25. (New) The optical control device as defined in claim 14, wherein the layer with the light polarizing function is provided on the light output layer.